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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/737,229	12/14/2000	Jin-Hong Kim	850795.90026	6287

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EXAMINER

DANIEL JR, WILLIE J

ART UNIT PAPER NUMBER

2617

DATE MAILED: 05/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/737,229	Applicant(s) KIM, JIN-HONG	
	Examiner Willie J. Daniel, Jr.	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to applicant's amendment filed on 23 December 2005.

Claims 3-5 are now pending in the present application. This office action is made **Final**.

Response to Amendment

2. **Claim 3** has been amended but Applicant **failed** to properly remove and apply mark-up (i.e., underlining, strike-through, or other required markings) of the limitations of the claim. A list of examples are the following:

- a. The limitation "...a mobile switching center (MSC)..." in line(s) 3 of the claim has been removed without the mark-up (i.e., strike-through). The Examiner interprets as though the Applicant intended to omit this limitation in the amended claim and replace the limitation with "...an MSC...".

- b. Line(s) 4-6 and 8 have limitations that include mark-up previously submitted in responses filed 23 September 2004 and 21 March 2005. The Examiner interprets as though the Applicant did not intend to include the mark-up of the limitations in the amended claim. As a note, see MPEP § 714 and 37 CFR 1.121(c).

3. This list of examples is not intended to be exhaustive. The Examiner respectfully requests the applicant to review all claims and clarify the issues as listed above as well as any other issue(s) that are not listed.

Claim Objections

4. **Claim 3** is objected to because of the following informalities:

a. Claim 3 recites the limitation "...an MSC..." in line(s) 3 of the claim. The Examiner suggests uses language such as "...a MSC...".

Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Houde et al.** (hereinafter Houde) (US 5,978,678) in view of **Hammer et al.** (hereinafter Hammer) (US 2003/0166403 A1).

Regarding **claim 3**, Houde discloses a method of providing (i.e., delivering) a wireless communication service (i.e., incoming call) to an internationally roaming cellular mobile station (16(1)) which reads on the claimed "international roaming mobile station" (see abstract; col. 1, lines 18-20; and col. 5, lines 1-5; Fig. 1), the method comprising the steps of:

a) registering the international roaming mobile station (16(1)) at a switching node (34) which reads on the claimed "MSC" (see abstract; col. 2, lines 22-32; col. 4, lines 28-67; col. 6, lines 7-12; Fig. 1);

b) determining by the MSC (34) whether a routing request message (e.g., signal 206) for the international roaming mobile station (16(1)) is for an international call when the MSC (34) receives the routing request message (206) (see col. 2, lines 33-40; col. 5, lines 22-43; col. 6, lines 24-36; Figs. 1 and 3); and

c) generating an international routing number of the international roaming mobile station (16(1)) when the routing request message (206) is for an international call and sending the international routing number (see abstract; col. 2, lines 37-55; col. 5, line 29 - col. 6, line 4; col. 6, lines 26-53; Figs. 1 and 3). Houde does not specifically disclose having the feature generating an international routing number by the MSC. However, the examiner maintains that the feature generating an international routing number by the MSC was well known in the art, as taught by Hammer.

In the same field of endeavor, Hammer discloses the feature generating an international routing number by the MSC (see abstract; [0011, 0015-0016, and 0037-0045]; Figs. 4 and 5), where providing international roaming service to an international roaming mobile station (430) in which a mobile switching center (MSC 420) in a serve domain (foreign country) generates an international routing number for the mobile station (430) when the MSC (420) receives a routing request.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Houde and Hammer to have the feature generating an international routing number by the MSC, in order for allowing an international roaming mobile station to receive calls in a country with a different numbering plan, as taught by Hammer (see [0012]).

Regarding **claim 5**, the combination of Houde and Hammer discloses every limitation claimed, as applied above (see claim 3), in addition Houde further discloses the method of claim 3, wherein said international routing number includes a temporary local directory number, a country code, and a system operator code (i.e., operator code) (see col. 2, lines 37-55; col. 5, line 29 - col. 6, line 4; col. 6, line 26-53; Fig. 3).

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Houde et al.** (hereinafter Houde) (**US 5,978,678**) in view of **Hammer et al.** (hereinafter Hammer) (**US 2003/0166403 A1**) as applied to claim 3 above, and further in view of **Koster (US 6,259,914 B1)**.

Regarding **claim 4**, the combination of Houde and Hammer discloses every limitation claimed as applied above in claim 3. The combination of Houde and Hammer does not specifically disclose having the features d) assigning a virtual origination number to the international roaming mobile station in the MSC when a call origination request from the international roaming mobile station is received at the MSC; and e) sending a call connect message having the virtual origination number instead of a calling party number. However, the examiner maintains that the features d) assigning a virtual origination number to the international roaming mobile station in the MSC when a call origination request from the international roaming mobile station is received at the MSC; and e) sending a call connect message having the virtual origination number instead of a calling party number was well known in the art, as taught by Koster.

In the same field of endeavor, Koster discloses the features

d) assigning a mobile directory number which reads on the claimed “virtual origination number” to the international roaming mobile station (100) in the MSC (110) when a call origination request from the international roaming mobile station (100) is received at the MSC (110) (see abstract; col. 3, lines 42-53; col. 4, lines 3-14; col. 6, lines 8-17; Fig. 1); and

e) sending a call setup request (510) which reads on the claimed “call connect message” having the virtual origination number (i.e., mobile directory number) instead of a calling party number (see col. 6, lines 30-46), .

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Houde, Hammer, and Koster to have the features d) assigning a virtual origination number to the international roaming mobile station in the MSC when a call origination request from the international roaming mobile station is received at the MSC; and e) sending a call connect message having the virtual origination number instead of a calling party number, in order to allow the international roaming cellular mobile station subscriber to also originate calls in the visiting country without regard to the numbering scheme plan in said visiting country by assigning a virtual origination number (i.e., mobile directory number) that is, for example, a valid North American Numbering Plan (NANP) formatted number. By assigning such number, any call originated by a mobile station subscriber, of a cellular system located in, for example, Canada or the United States, in said visiting country would have been treated by any PSTN switch as a normal call, as taught by Koster (see abstract; col. 3, lines 53-55), thereby allowing the system to be configured easily and facilitate service to international roamers.

Response to Arguments

6. Applicant's arguments filed 23 December 2005 have been fully considered but they are not persuasive.

The Examiner respectfully disagrees with applicant's arguments as the applied reference(s) provide more than adequate support and to further clarify (see the above claims and comments in this section).

7. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Willie J. Daniel, Jr. whose telephone number is (571) 272-7907. The examiner can normally be reached on 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on (571) 272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

WJD,JR
12 May 2006

Marsha D Banks-Harold
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